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10/678,959	10/02/2003	James Roy Easter	45568-00476	7285

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EXAMINER	
PENDLETON, DIONNE	
ART UNIT	**PAPER NUMBER**
2627	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/678,959	EASTER ET AL.	
	Examiner	Art Unit	
	Dionne H. Pendleton	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 9-15 18-27* is/are rejected.

7)☒ Claim(s) *7,8,16 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. **Claims 1-4, 6, 9-14 and 18-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Griffith et al. (US 6,178,353)** in view of **Mann (US 5,545,191).**

Regarding claim 1,

Griffith teaches a retention apparatus for an external housing of a semi-implantable hearing aid, comprising: external housing ("40" in figure 3b) containing at least one external component (50) of the semi implantable hearing aid, and wherein the external housing is retentively positionable relative to the patients skin by magnetic attraction with an implantable magnet (28; also see column 5, lines 27-33).

Griffith does not teach that the external housing is constructed as specifically claimed.

Mann teaches a retention apparatus for an external housing ("62" in figure 5) of a semi-implantable hearing aid wherein the external housing comprises a disk member (*indicated by oval disk member comprising articles "68" and "70" in figure 5*) disposable between a patient's skin ("26" in figure 5) and an external housing (62), and wherein the disk member includes a first surface (not shown) to form an interface with the external housing and a second surface (shown) to form an interface with the patient's skin, and wherein the second surface includes at least one rounded transition ("68" in figure 5; also see "54" in figure 4) between a first and second portion of the second surface to provide a contoured shape.

It would have been obvious to alter the external housing of Griffith per the teachings of Mann, such that the external housing of Griffith is provided with a disk member having a contoured surface so as to further aid in properly orientating the external housing, thus further ensuring optimal signal transfer to the implanted housing (see column 5, lines 25-30).

Regarding claim 2,

Griffith teaches a retention apparatus of claim 1 wherein a magnet is disposed within the center of an implanted housing, as well as an external housing.

While **Mann** teaches an external housing having a contoured shape (see figure 4) which extends about a periphery of the area of the patients skin contacted by the second surface.

Regarding claim 3,

Figure 5 illustrates that the inner portion of transition **68** has a contoured shape like that of a shallow dish.

Regarding claim 4,

The combined disclosures of **Griffith and Mann** teach that the rounded transition (68) would includes a predetermined radius to maintain a predetermined distance between a first coil located in the external housing and a second coil located subcutaneously on the patient (*see, the discussion of how the proximity of magnetic elements to inductive coils will affect the efficiency of the device in Griffith, column 5, lines 38-51).*

Regarding claim 6,

Mann teaches in **column 6, lines 23-24** a detachable external magnet for properly aligning the external housing with the implanted unit, thereby inherently teaching a magnet "receptacle", as broadly claimed.

Regarding claim 9,

Griffith teaches an external apparatus for a semi-implantable hearing aid, comprising: a housing (40) containing at least one component (50) of the semi implantable hearing aid, wherein the housing includes an interface (*see, surface of housing "40" in figure 38 which lies adjacent the wearer's skin*) for retentive positioning of the housing on a patient's skin; and a first magnet (26) located within said housing (40) for retentive positioning of the first surface in juxtaposed relation to and magnetic attraction with an implanted magnet (28) of the semi-implantable hearing aid.

While figure 5 of **Mann** teaches an external apparatus (62) for a semi-implantable hearing aid having an interface (70), and wherein the interface is specifically constructed so as to comprise a first surface having at least one rounded transition ("68" in figure 5; "42" in figure 3) between a first portion and a second portion of the first surface and wherein the rounded transition provided as contoured shape which distributes pressure.

Regarding claim 10,

Mann teaches in **Figure 5,** that the interface (68,70) is an integral part of the housing (62).

Regarding claim 11,

With regard to figure 5, Mann teaches that parts "70" and "62" are "integrated into a single housing to form an external unit. Mann does not teach that said parts are formed by a molding process from a single material.

Therefore, Mann is interpreted as teaching in Figure5, that the interface (68,70) includes a separate structure (64) from a first housing portion (that portion of housing "62" most adjacent to the skin of the wearer) the housing (62) and includes a second surface (interpreted as the rear surface) for interfacing with the first portion of the housing.

Regarding claim 12,

Griffith teaches the retention apparatus of claim 9, wherein a magnet is disposed within the center of an implanted housing, as well as an external housing (see "26" and "28").

While **Mann** teaches an external housing having a contoured shape (see figure 4) which extends about a periphery of the area of the patients skin contacted by the second surface.

Regarding claim 13,

Figure 5 illustrates that the inner portion of the transition (68) has a contoured shape like that of a shallow dish, as broadly claimed.

Regarding claim 14,

The combined disclosures of **Griffith and Mann** teach that the rounded transition (68) would include a predetermined radius to maintain a predetermined distance between a first coil located in the external housing and a second coil located subcutaneously on the patient (*see, the discussion of how the proximity of magnetic elements to inductive coils will affect the efficiency of the device in Griffith, column 5, lines 38-51).*

Regarding claim 18,

Mann teaches the invention of claim 11. Mann also teaches that the second surface (not shown) forms an interface with a first portion of the housing (62). Since the second surface of the interface includes an open portion (68), the patient's hair may be captured therebetween.

Regarding claim 19,

The structure of Griffith's apparatus inherently teaches a method for disposing the external portion (62) of the semi-implantable hearing aid on the patient proximate the implanted magnet, wherein the external housing (40) is retentively positioned by magnetic attraction of the external magnet with said implantable magnet (28; also see column 5, lines 27-33).

While, **the structure of Mann's apparatus** inherently teaches a method for mounting an external portion (62) of a semi-implantable hearing aid, comprising: providing a surface on the external portion that includes a contoured contact portion (68) for contacting the patient's skin, wherein the contoured portion is substantial enough so as to distribute pressure;

And providing a radius of the contoured contact portion (68) as a function of a magnetic attraction between the implanted magnet in housing (12) and an externally located magnet housed in the external portion (*see, the rejection on claim 4).*

Regarding claim 20,

The combined disclosures of **Griffith and Mann** teach locating a housing containing at least one external component for a semi-implantable hearing aid, proximate the implanted magnet in housing (12).

Regarding claim 21,

Mann teaches interfacing a disk shaped retention apparatus (68,70) including a contoured contact surface (68) with the housing; and locating the interfaced disk and housing on the patient proximate the implanted magnet (12).

Regarding claim 22,

As set forth in the rejection of claim 4 above, the combined disclosures of **Griffith and Mann** teach providing a range of radii (see the internal portion of contour (68) to achieve a predetermined depression, said depression shape being determined prior to manufacture) of the contoured portion into the patient's skin to achieve a desired separation between a first coil in housing (62) and a second coil located in housing (12).

Regarding claim 23,

The combined disclosures of Griffith and Mann inherently teach that the radii of the contour will be selected as a function of the connection between external housing (62) and implanted housing (12), since Mann is concerned with the effective coupling between the external housing (62) and implanted housing (12) (*see column 4, lines 29-32).*

Regarding claim 24,

Griffith teaches achieving a predetermined separation between the first and second coils (column 5, lines 38-50).

Regarding claim 25,

The combined disclosures of **Griffith and Mann** teach the invention of claim 19. Griffith teaches providing one of a plurality of magnets (inherent) having a magnetic attraction to achieve a predetermined depression into the patients skin. And to achieve a desired separation between a first and second coils (see column 5, lines 38-50); and in figure 3b, providing a magnet (26) within the external housing i.e., “a receptacle”.

Regarding claim 26,

Griffith teaches retaining the external housing in juxtaposed position relative to the implanted housing using magnetic attraction.

Regarding claim 27,

Mann teaches the invention of claim 21. Mann also teaches that the second surface (not shown) forms an interface with a first portion of the housing (62). Since the second surface of the interface includes an open portion (68), the patient's hair may be captured therebetween.

2. **Claims 5 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Griffith et al. (US 6,178,353)** in view of **Mann (US 5,545,191)** as applied to claims 1 and 9 above, and further in view of **Kuzma (US 6,275,736).**

Regarding claims 5 and15,

The **combined disclosures of Griffith and Mann** teach the apparatus of claim 1. Mann fails to teach that the disk member ("68" in figure 5) is "magnetic in nature", as broadly claimed.

In *column 4, lines 5-6*, **Kuzma** teaches a retention member ("11" in figure 1a) disposable between an external housing (20) and semi-implantable hearing aid ("30" in figure 2), wherein the retention member (11) is constructed from ferromagnetic material, i.e., "magnetic in nature".

It would have been obvious for one of ordinary skill in the art at the time of the invention to alter the disk ("68" in figure 5) of Mann per the teachings of Kuzma, constructing the disk from magnetic materials, and also to further substitute the magnetic disk arrangement of Mann, for the internal magnet of Griffith, for the purpose decreasing the size of the external housing in Griffith, while providing with additional means ("68" and "60" in figure 5 of Mann) for properly orientating the external housing so that optimal signal transfer to the implanted housing may occur.

Allowable Subject Matter

3. Claims 7,8,16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 8 and 17 are objected to due to their claim dependency.

Response to Arguments

4. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne H. Pendleton whose telephone number is 571-272-7497. The examiner can normally be reached on 10:30-7:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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PRIMARY EXAMINER AU 2627